

# **Standard Operating Procedures for Ship's Force Protocol**

**LG #9C**

# **Preventive Maintenance on Brake Assemblies**

**This SOP covers brake planned maintenance system (PMS) on anchor windlass, capstan, and weight handling equipment (hoist, cranes, conveyors, elevators, winches, chainfalls, and come-a-longs) in which brakes are made of asbestos-containing materials (ACM)**

# Stowage

- ☞ **Stow asbestos-containing materials (ACM) in sealed impermeable containers**
- ☞ **Ensure asbestos warning labels affixed to containers**
- ☞ **Ensure stowage areas for asbestos labeled accordingly**
- ☞ **Stow waste material for ashore offload**

# Personal Protective Equipment (PPE)

- ☞ **Half-mask air purifying respirator equipped with HEPA filters**
  - **DO NOT wear single use disposable respirators**
  - ▮ **Ensure RPM is involved in selection process**
- ☞ **Disposable coveralls**
  - ▮ **Tyvek Type II or equivalent**
  - ▮ **Seal coveralls at wrists, ankles, & neck**
  - ▮ **Use duct tape for sealing**

# Personal Protective Equipment (PPE)

- ☞ **Disposable gloves to handle brake assemblies**

- **Tape gloves at wrists**

- ▮ **Surgeon's gloves prohibited**

- ▮ **Use gloves from AEL2-2330024045, Appendix B1-J of OPNAVINST 5100.19 (series)**

Note: **The command shall train, fit test and ensure that all personnel have been medically cleared to wear a respirator before allowing any personnel to don a respirator.**

# **Important Note**

- ☞ DO NOT consume food or beverages, chew gum or tobacco, smoke, or apply cosmetics during maintenance operations!**



# Procedures

- ☞ **Cordon off area**
  - **Use rope or tape**
  - ▮ **Post appropriate asbestos warning signs**
- ☞ **Control access to space where maintenance performed**
- ☞ **Lay down impermeable drop cloth**
  - ▮ **6-mil poly sheeting good for this purpose**

# Procedures (continued)

- ☞ **DO NOT** use equipment or processes that may liberate dust:
  - **Dry sweeping**
  - ▢ **Air hoses**
- ☞ **Before commencing work**
  - ▢ **Wet area where break assembly located and/or**
  - ▢ **HEPA vacuum area**



# **Procedures (continued)**

- ☞ **Commence preventive maintenance**
- ☞ **Do not use power tools that may create dust**
  - **If tool must be used, consult assistant safety officer/IHO for guidance**

# **Cleaning up**

- ☞ **Vacuum area with HEPA vacuum  
--and/or--**
- ☞ **Wet wipe all dusty surfaces**
- ☞ **Dispose of damp rags as ACM**
- ☞ **Remove all clothing in reverse  
order as it was applied**
  - **Dispose of coveralls & gloves as ACM**

# **Cleaning up (continued)**

- ☞ Remove respirator last**
- ☞ Treat cartridges as ACM**
- ☞ Decontaminate facepiece and return to proper storage**
- ☞ Ensure tools cleaned and decontaminated with damp rags**

# **Cleaning up (continued)**

- ☞ **Dispose of rags as ACM**
- ☞ **Personnel shall wash their hands upon completion of maintenance actions and before eating, drinking, chewing gum or tobacco, or applying cosmetics**
- ☞ **Have safety officer inspect area using Appendix B3-H of OPNAVINST 5100.19 (series) prior to allowing access to space**

# Offload

- ☞ **Material to be handled as ACM**
  - ▢ **Old brake pads & scrap material**
  - ▢ **Rags**
  - ▢ **Disposable clothing (coveralls, gloves, tape, etc.)**
  - ▢ **Respirator cartridges**
  - ▢ **Drop cloths**

# Offload (continued)

- ☞ Place all waste in impermeable, appropriately labeled asbestos disposal bag
- ☞ Wet material thoroughly and seal with “J” or goose-neck seal
- ☞ Double-bag in second disposal bag & seal with “J” or goose-neck seal

**Note: Use HEPA vacuum to evacuate air from bags prior to sealing. This reduces chance of bag rupture, and decreases space necessary for stowage**



# Medical Surveillance

- ☞ **May be required for this operation**
- ☞ **Based on past history & current exposures to asbestos**
- ☞ **Placement depends on:**
  - **Industrial Hygiene sampling data**
  - ▢ **Determination of Medical Department Representative**

# Training

☞ **All personnel performing brake assembly PMS operations:**

→ **Shall be trained on this SOP prior to work**

- ▢ **Accomplished according to Appendix B1-E of OPNAVINST 5100.19 (series)**
- ▢ **Accomplished by safety officer, engineering officer, EART or IMA member**
- ▢ **Accomplished as on-the-job training**
- ▢ **Training documented in service record**